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ABSTRACT

This booklet provides guidelines and suggestions for planning school library media facilities. The intended audience is library media specialists; however, it is expected that administrators and architects may also find it useful. The importance of helping the architect understand the school media center's unique mission and relevant educational specifications--e.g., activities related to teaching and learning, patterns of use, and space requirements--is discussed, and checklists for educational specifications and monitoring progress are provided. A detailed discussion addresses the functions and relationships of major areas within the media center, e.g., circulation, reading areas, and computer laboratories; describes New Hampshire's minimum space requirements; and presents recommended space allocations in tabular form. General aspects of design that encourage easy access to information and services are outlined. Specific design considerations are offered for acoustics, color and signage, environmental control, handicapped access, lighting, safety, security, traffic flow, technology and communications, visibility, weight, and windows. Specific types of furniture and furniture arrangements are suggested, and tips for moving a library media collection from an old facility to a new one are provided. A narrative description of an elementary school library media center is appended together with examples of floor plans for elementary, middle, and high school library media centers. (11 references) (SD)

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PLANNING SCHOOL LIBRARY MEDIA CENTER FACILITIES for NEW HAMPSHIRE and VERMONT

State of New Hampshire . Department of Education
Concord

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1989

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PLANNING SCHOOL LIBRARY MEDIA CENTER FACILITIES for NEW HAMPSHIRE AND VERMONT

Susan C. Snider
Curriculum Supervisor / Library Media Services
New Hampshire Department of Education

Leda Schubert
School Library Media Consultant
Vermont Department of Education

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FOREWORD

Planning School Library Media Center Facilities for New Hampshire and Vermont was developed as a direct response to numerous questions and requests for help from school librarians and administrators involved in planning library facilities. This publication will be useful not only to those involved in planning new building construction and renovation, but also to library professionals who want to make better use of existing space.

This publication is a fine example of collaboration between staff members of small states where only one person serves as curriculum supervisor or consultant within a discipline. Such collaboration provides a vehicle for the synthesis of expertise which, in this instance, has produced a valuable tool for planning effective library media centers.

John T. MacDonald, Ph.D.
Commissioner of Education
State of New Hampshire

Richard P. Mills
Commissioner of Education
State of Vermont

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INTRODUCTION

New Hampshire and Vermont are experiencing population growth which is resulting in a boom in new school buildings. A rapidly increasing number of library media specialists find that they are suddenly involved in the planning of new or remodeled library media center space. The purpose of this booklet is to provide guidelines and suggestions in a single source of coordinated information about school library media facilities. The intended audience is library media specialists; however, administrators and architects should find it useful.

The suggestions and guidelines within this document are not be be considered requirements. Facilities are built to meet program objectives. It is hoped that this document will help those involved in planning library media centers clarify evolving library media program needs as well as to give information as to how to meet them.

The library media specialist should be involved in the planning and design of the center at all stages of the process. The library media specialist must assume a leadership role from the beginning and must be able to clearly articulate program needs to the administration, the school board, and the architect. It is also advisable to include a consultant experienced in planning library media facilities. It is important that a planning process be followed from beginning to end. In ***Information Power: Guidelines for School Library Media Programs***, the steps in the planning process are identified as: 1) Evaluation of the present program; 2) Projection of future needs; 3) Development of a plan based on the evaluation and the projections, the guidelines established by the profession, and the school and district's philosophy and goals; 4) Development of educational specifications; and, 5) Monitoring of the project from beginning to end. (ALA and AECT, 1988).

Each school is different and has its own educational goals and objectives and program needs. Therefore, this booklet has been kept as general as possible, while including enough specific information to help in planning. Visiting other library media centers and talking to staff about successes, mistakes, wishes, and dreams is another source of good information and ideas.

Many thanks to those who took the time to read this document and offer suggestions, to those who provided material for the appendices, and to the Howe Public Library in Hanover, New Hampshire, which the authors used as a meeting place to discuss this project.

EDUCATIONAL SPECIFICATIONS

In order to design the most functional and attractive library media center, the architect will need detailed information regarding the mission of the library media program as it relates to the philosophy of the school, the activities that support teaching and learning, the services provided, and the administrative functions. Even if the architect understands the variety of activities that occurs in a library media center today, each library media program is unique. Educational specifications that are written in detail to describe objectives, activities, patterns of use, space, and furniture requirements are the most useful. A checklist for educational specifications can be found on page 16, and Appendix B provides a sample. It is recommended that a committee of library media personnel, teachers, staff, parents, and students be involved in the development of these specifications.

SPACE FOR LIBRARY MEDIA PROGRAMS

The central function of the library media facility is the housing, circulation, and centralized distribution of the collection of information resources and equipment used in the school's instructional program..... The library media facility provides students and teachers with adequate resources and spaces to be used for learning in all aspects of the school's curriculum. Facilities are required that encourage the student to study independently, to interact and work cooperatively with other students in both small and large group settings, and to receive formal and informal instruction from teachers and the library media specialist. Facilities and equipment must also be available to encourage and support the production and communication of ideas and information in a variety of media and formats.... (ALA and AECT, 1988, pp 87, 88). The following are the major areas to be considered in planning library media center space. The functions that occur in each area and their relationships to each other must be recognized.

Areas, Functions, Relationships

Entrance/Circulation: The size of the circulation area will vary depending on the size of the school, the grade level served, and the functions that take place in this area. In many one-person libraries the circulation area is also used as a work area, indicating that cupboards and shelving will need to be incorporated into the design. In larger schools, the copy machine may be placed in this area. Schools which use both an electronic circulation system and security system will need to plan for an area large enough to keep each system at a distance from the other to avoid interference. In addition to being adjacent to the reading, viewing, and listening area, the circulation area should be near the reserve area, the periodical storage area and the workroom.

Reading, viewing, listening: This area includes the library catalog, the reference collection, seating, and shelving for the circulating collection and current periodicals. Seating should be provided for a *minimum* of 10 per cent of the student population (15-30 percent is recommended). In a small elementary school it is recommended that there be

seating for a minimum of one and a half classes. Furniture should include chairs and tables, carrels and workstations, and lounge-type chairs or pillows for younger children. Seating for 16 to 20 within a study area is preferable to larger groupings. Story areas in elementary schools should be located away from the circulation area and heavy traffic areas.

Workroom: In small elementary schools this area may be combined with storage and audiovisual production areas. If the room is to perform several functions, this must be taken into consideration when determining size. There should be a sink with running water, sufficient electrical outlets, countertops, cupboards, and shelving. If there is no librarian's office, a telephone should also be placed in this area. The workroom should be located near the entrance and the circulation area.

Office: This area provides space for professional consultation with teachers and students and for the performance of administrative tasks. The office should include a telephone, and should be located near, or be visually accessible to the reading, viewing and listening area.

Storage: Adequate storage for audiovisual software, back issues of periodicals, and audiovisual equipment is extremely important. One storage area may suffice in smaller schools; however, in larger schools the areas should be separate. Temperature and relative humidity requirements must also be considered.

> ***Equipment:*** Even in schools where equipment is decentralized in the classrooms or elsewhere, a secure lockable storage area is essential for equipment that is not decentralized. Shelving must be deep enough to accept bulky equipment. This area should be near the workroom and near an exit.
>
> ***Periodicals:*** Periodical storage should be near the reference area for easy access. Consideration might be given to housing periodical indices, microfiche, paperback issues, and microfiche readers within easy access to one another. Space for five years of back issues should be provided.
>
> ***Audiovisual Software:*** In some schools audiovisual software is shelved in the main reading area with the circulating collection. Most schools shelve it by like type in a separate area.

Audiovisual Production: This area provides space, materials, and equipment for the production of instructional materials by students and staff. It should include a sink, adequate electrical outlets, and countertops. It may include a soundproof audio studio, a darkroom, or a video production studio. The production lab should be located near the equipment storage area and should be secure.

Conference rooms: These rooms may be used for many purposes including listening and viewing, computer applications, and small group projects. Adequate electrical outlets and cable outlets for television should be included. Consider including a telephone line for telecommunications in one of the rooms. Moveable walls between conference rooms may be considered in small schools to allow for flexible use of space.

Multi-purpose room: An area that can be used for class-size information skills instruction can also serve as a meeting room for faculty, committees, and student programs and clubs. It should be equipped for audiovisual presentations and should be located near the reference and card catalog area.

Auxiliary spaces:

TV studio: Schools with broadcast quality equipment for cable television will need an soundproof studio located near the media production area. The studio should be adequately ventilated, provide wiring for high voltage equipment, and be very secure.

Equipment repair and maintenance: In schools where this function is significant, an area that includes a workbench, necessary outlets, storage, and necessary test equipment should be provided either within, or adjacent to, the equipment storage area.

Computer lab: As the use of computers becomes more and more integrated within the school, large computer labs are giving way to mini-labs within classrooms and special areas. Rather than a computer lab, it is preferred that there be a number of computers available for different purposes within the library media center; however, in some schools a larger computer lab adjacent to the library media center may be deemed necessary for group projects and instruction.

New Hampshire's Minimum Space Requirements

In New Hampshire, the minimum standard for library media center space in schools with grades 7-12 is 40 square feet per 10% of the student population, with a minimum area approved of 1,800 square feet (New Hampshire Department of Education, 1975). This standard applies to buildings that were constructed or renovated after July 1, 1969. For elementary schools enrolling 501 or more children, the minimum space required for library media center space is 40 square feet per child for 10% of the enrollment. In elementary schools with 300-500 students the requirement is 2,000 square feet; for schools with 151 to 300 students it is 1,000 square feet; and in schools with fewer than 150 students classroom space is acceptable (New Hampshire Department of Education, 1987). *It must be remembered that these are minimum requirements.*

To meet basic programming and collection needs, some schools may choose to go beyond the minimum space requirements and use the minimum standards as a guide to determine the space that will best serve their needs. For example, when determining square footage for library media centers in schools which house grades K-8 or grades K-12 it is important to consider the different space needs of the various age groups that will be using the library. Rather than working with the minimum for the total school population, it would be better to begin with the minimum for each grouping and subtract space that it is not necessary to duplicate. To illustrate, in a school with a total population of 700 in grades K-8 the minimum standard would be 2,800 square feet. However, if one looks at the population breakdown of 400 students in grades K-5, and 300 students in grades 6-8 and figures accordingly, the total square footage would be different. Using the New Hampshire minimum standard for elementary schools the elementary figure would be 2,000 square feet and the middle school figure would be 1,800 square feet, providing a total of 3,800 square feet. This space, minus space that need not be duplicated, would allow for separating the two extremes in the grades and provide enough space for a collection that would support the curriculum and the reading levels of the grades being served, a story area for the elementary school, and the reference needs of the middle school.

Another way of using the minimum standards is to consider the minimum square footage for the public area only. Work and storage areas would be additional square footage. For a comparison of library spaces using the New Hampshire minimum square footage; the New Hampshire minimum with additional storage and workspace; and the recommended space allocations on the next page, see APPENDIX C, page 30.

Recommended Space Allocations

Schools with quality library media programs will need additional space to meet the demands of an active library media center. The following recommendations may be considered and adapted to meet the needs of specific programs.

School Enrollment	150-300	300 - 500	500 - 1000	1000+
AREA	SQUARE FEET			
Main library area Entrance/Circulation Reading, Listening & Viewing Shelving for the circulating collection	1200-2,000	2,000-3,000	3,000-6,000	6,000+*
Office	x	150-200 ---------->		
Workroom	200-400---------->			
AV Production	x	x	400-800---------->	
Storage AV equipment Periodicals AV software	x	200 - 400	400-800--------->	
Conference rooms	0-1@ 150 sq.ft.	1-3 @ 150 square feet---------->		
Multi-purpose room (classroom, large group, viewing, meeting room)	x	x	1000---------->	
Auxiliary Spaces				
TV studio	x	x	x	1600/15' ceiling
Equipment repair	x	x	x	250
Computer lab	depends on use of computers			

* To determine recommended square footage beyond 1,000 students, multiply the number of students by 15% and multiply by 40.

DESIGNING LIBRARY MEDIA CENTER SPACE

General Considerations

A well-designed library media facility reflects program functions, provides easy access to information and services, and creates an environment that encourages use. As Bennett (1987) points out, good library media center design is a combination of functional, aesthetic and behavioral concerns. A couple of notes of caution are in order, however. While it is important that the facility be designed with the current staff in mind, it is important not to include too many personality-specific design elements that may not transfer easily to future personnel. It is also necessary to be aware that as important as aesthetics are, good functional design should not be sacrificed. Making sure that the architect, the administration, and the school board are well informed about library functions can ensure good design.

The media center should be located centrally, close to classes that use the facility the most. Location near noisy areas such as the music room, the gymnasium, and the cafeteria should be avoided. A ground floor location is encouraged. Bi-level media centers should be avoided because supervision is difficult and handicapped access will require either an elevator or ramps. When determining the location of the library media center it is also important to consider.....

- Extended hour use, now or in the future.
- Access to exterior loading area.
- Future expansion. A media center with no outside wall provides limited options for future growth.
- Live load capacity. Especially in remodeled facilities it is very important to determine whether or not the area designated for stacks and cabinets is able to carry the weight of the collection it will hold. (See **Weight** under ***Design Considerations***)
- Access to restrooms.

Flexibility is the key to a successful media center design. Cohen and Cohen (1979) suggest that the simple square provides the most flexible space. Book stacks are rectilinear and they can run north-south or east-west in a square. A square is good for lighting and acoustics, and also minimizes walking distances. A rectangle can also provide for good use of space. A circle decreases flexibility and is more expensive to build. While most libraries will not be shaped as a simple square, the design concept is important in assigning use of space. A central square, with the main entrance as its heart, encompasses the area of heaviest use: circulation, reference, and the library catalog. Other areas of user activity radiate from the central square, with those requiring the most quiet placed the furthest away.

Beware of too much non-assignable space such as atriums, stairwells, and unusable nooks and crannies. Such space may be difficult to supervise, must be heated, lit, and ventilated, and takes away from collection or user space. Aesthetic spaces and shapes are important; however, they must follow function and not interfere with it. Appealing spaces can be provided by low stack and furniture placement and by adding interest with plants and artwork.

Design Considerations

Acoustics. Carpeting is recommended for most areas of the library media center. Acoustical tile and carpeting absorb much noise, while bare walls and floors increase noise levels. It is sometimes advisable to drop the ceiling in library media centers when renovating older buildings.

Extra soundproofing is needed in audio and video production and projection areas and in areas where computer printers are used. Mufflers for computer printers are recommended where the printer is used in the main library area.

Place areas that tend to be noisy near each other and closest to the central square core of activity. For example, story areas in the elementary school should be placed away from the circulation and entrance area.

Color and signage: Color is an important design element and needs to be given adequate attention. Harmonious colors and textures should be used throughout the library media center. Color strongly influences behavior. For example, warm colors tend to stimulate creativity and make people more outgoing, while cool colors encourage meditation. Boldly colored walls may be limiting whereas a neutral color scheme allows for a wider variety of color for furnishing. In addition, a buff colored wall surface hides fingerprints.

Often not enough attention is given to signage in libraries. While necessary to point out service areas and Dewey Decimal subject areas, graphics can also be an important part of the overall design. The use of different colors can also help to depict functions. Adequate signage is critical to independent use by students and will greatly decrease the number of questions of the "Where is?" nature.

Displays: Displays can brighten up the media center and provide a forum for the viewing of student projects and artwork. Provide plenty of space for eyecatching displays, either in open shelves and bulletin boards or in locking, moveable display cases. Display cases may also be placed in the corridors near the entrance.

Electricity: (See technology and communications)

Environmental control: Temperature and humidity control are important for preservation of materials as well as for human comfort. Cohen and Cohen (1979) suggest it is best to keep the relative humidity in libraries as close to 45% as possible. Extremes above and below 45% can lead to mold or to brittle papers, microfilm, and audiovisual software (Boss, R.W., 1987).

Provision must be made for fresh air exchange and draft from vents should be avoided. Designing for windows that open instead of closed climate systems should be encouraged when possible.

Handicapped access: The library media resources must be accessible to students in wheelchairs. Three foot aisles between the stacks will allow for wheelchairs to pass through as most wheelchairs are 2'3" to 2'8" wide. Furniture placement and height of stacks are other considerations.

Lighting: There are three major kinds of lighting:

- ***Incandescent*** - good color, easy to install, but expensive and heat producing.
- ***Fluorescent*** - better energy efficiency, but less satisfactory color and occasional flickering and buzzing.
- ***High intensity*** - long life and good energy efficiency, but long warm-up and potential safety hazards.

The best light is well-diffused, glare-free, and aesthetically pleasing. Lighting should be specified according to task. Areas that will be used for audiovisual or computer related activities should have a dimmer or blackout options. Skylights should not be placed where control of lighting is necessary, or they should be equipped with electronically controlled blinds. Consider placing all lighting controls at an easily accessible central location such as the circulation area.

Pay particular attention to stack lighting. Lights perpendicular to stacks or in a grid pattern allow the most flexibility. Lights placed parallel to stacks limit placement as dark areas may be created. If lights are placed parallel to the stacks be sure that they are centered between the stacks and not placed directly over the shelving.

Safety: Building codes will specify fire and other safety precautions. Design should enhance the safety concepts. The avoidance of sharp edges and corners, well-marked exits, provision for adequate traffic flow, approved electrical equipment and equipment securely fastened to carts are examples of safety considerations. Ground fault outlets should be used near sinks.

Security: Design features of the library media center can impact on the security of materials and equipment. For example, too many entrances and exits can create problems. By limiting entrances and exits to near the circulation area and required fire exits, fewer items will walk-away, and the potential for the library media center to become a walk-through shortcut can be avoided. Electronic security systems are expensive, but they may be necessary in some facilities where loss of materials warrants them.

Secure areas with lockable doors should be provided for storing audiovisual equipment. Computers and other expensive equipment used in the reading area should be secured or cable locked.

Traffic Flow: A good library arrangement allows for movement of people from high use areas, such as the circulation desk and library catalog, to the shelves, and then to the reading study area with efficiency and without disturbing the quiet areas. Spaces between tables and between tables and shelving must be large enough (minimum 5 ft.) to allow for easy access.

A schematic or bubble diagram is helpful in showing relationships of spaces within the library. (See Appendix A). To check out a library floor plan, imagine a particular task, such as returning a book, checking out a book, picking up audiovisual equipment, etc., and trace the steps a student or a staff member would have to take to accomplish the task.

Technology / communications: Planning for present and future use of technology and communication systems cannot be too highly stressed. Schools being built today must be planned for present and emerging technologies. In addition to the need for adequate space for these systems, the transmission of information by electronic means requires cabeling, electrical wiring, and phone lines. Vendors, electricians, and architects can provide necessary information regarding the technical aspects. Sufficient electrical outlets placed in appropriate places are essential. Consider the following for now and the future:

- Listening and viewing areas
- Computer use by students
- Computer use for library administration
- OPAC - Online public access catalog
- Automated circulation
- Online database searching
- CD-ROM and other optical disc technologies
- Microform reader/ printers
- Copy machines
- Audiovisual production
- Security systems

A telephone line will be needed to:

- Access online databases, electronic mail, information sharing networks
- Utilize telefacsimile machines

(a separate line dedicated to the above purposes is needed)

- Contacting other libraries to facilitate interlibrary loan
- Communicate with vendors, salespeople, and other professionals

It is also necessary to consider the need to accommodate present and changing communication technologies such as :

- Satellite receivers
- Computer networks
- Telephone systems
- Television distribution systems

Visibility: Run stacks so the line of vision is unobstructed, i.e., parallel to sightlines rather than perpendicular. Because so many media centers are staffed at least part of the time by only one person, it is essential to be able to see what is going on in all areas of the library at one time.

Weight: It is extremely important that the live load (weight of elements that can be moved and are not part of the structure itself) be considered in designing and remodeling library space. According to Cohen and Cohen (1979) a three-foot bookstack with seven shelves that is approximately 85% full weighs 1972 pounds. If 100% full, the same bookstack will weigh 2320 pounds. Paper weighs 58 pounds per cubic foot. Microforms weigh more than paper.

Libraries should be structurally sound and able to handle 150 pounds of live load per square foot. In areas where high density shelving is used, the live load capacity should be 300 pounds per square foot. As a point of comparison, office buildings are usually built to handle 50 to 60 pounds per square foot. (Cohen and Cohen, 1979). A structural engineer will be able to determine if the building is structurally able to handle the collection.

Windows: Seek a balance between adequate natural light, views, and too many windows, which diminish energy efficiency and limit room arrangement possibilities. Ultraviolet light can cause fading and long term damage to carpets, upholstery, and books.

Windows facing hallways should be limited to entrance areas. Windows that are internally placed in offices and conference rooms should be at least 42 inches from the floor to be in line with low shelving islands.

FURNITURE

In some building projects the furniture selection is included in the architect's services and is part of the package. In other projects, the furniture is purchased separately and must go out to bid. Furniture should be comfortable, attractive, sturdy, and easy to maintain. It should be the appropriate size for the students who will be using it. There are basically three grades of library furniture: solid wood, plastic and wood laminate, and all plastic or metal. If furniture goes out on bid, the grade or construction should be specified. When selecting furniture and determining specifications, consider the following:

- functional design
- quality
- price
- ease of installation
- flexibility/ease of rearrangement
- availability in the future
- warranty

Another consideration when selecting furniture is the color of wood or plastic laminate. While furniture serves a very definite functional purpose, it also contributes to the overall atmosphere of the library. When choosing the color and design of the library furniture, the grade level of students, the color of the carpet and walls, and the color and design of any existing furniture that will be used should be considered.

Specific Furniture

Chairs: Look for stretchers (rods connecting legs) for strength, or glides to protect carpet and to allow ease of movement. If arm chairs are to be used at tables or carrels make sure that the arms fit under the table. Consider upholstered lounge furniture for the current periodical reading area. Whenever possible sit in chairs before they are purchased to determine comfort and suitability.

- *Sizes*

Level	Height
Elementary	14"-17"
Junior High	16"-18"
High School	18"

Tables: Four seats to a table is preferred and tables should seat no more than six. When making decisions about shapes and placement remember that rectangular tables are more conducive to study whereas round tables encourage conversation. Rectangular tables are more adaptable; however, round tables fit well in corners and odd areas and add visual appeal.

• *Sizes*

Level	Width	Height	Length	Round	Square
Elementary	36"	25-28"	60-72"	48" diameter	30-36"
Junior High	36"	27-30"	60-72"	48"diameter	36-42"
High School	36"	29-30"	60-72"	48"diameter	42"

Carrels: Consider carrels for quiet study. Carrels may be placed in islands in the center of the library reading area or along the wall. If placed along the wall, perpendicular placement is preferred. Carrels facing the wall may not be used as people sitting with their backs unprotected feel psychologically vulnerable.

Carrels used for listening, viewing, microform reading and as computer workstations must be wired for electricity (wet carrels) and large enough to accommodate the equipment and to allow for notetaking. Electrical accessories such as power columns and power legs and wire management systems are available from some furniture manufacturers allowing for custom wiring of carrels and tables. Keyboard pullouts are also available. If carrels must be locally made, make sure that holes are cut for grommets and that there is a system for wire management incorporated into the design.

• *Sizes*

Purpose	Width	Height	Depth of Desk	Depth of unit
Study	36"	See	24"	36"
Wet	36-48"	tables	24-30"+	36-42"

Circulation desk: This need not be a cumbersome, inflexible and expensive piece of furniture. Consider the actual needs related to the size of the library, whether or not circulation will be automated in the near future, and other functions which occur at the circulation desk. Avoid built-in circulation desks and consider purchasing sectional units which can be rearranged or expanded. The charging section should be the appropriate height for the students who will be using it (30'-32" for primary; 39" for fourth grade and up). In K-8 schools two charging sections may be considered.

Library catalog: A card catalog drawer holds approximately 1000 cards. To determine how many drawers are needed, multiply the number of items in the collection times four and divide by 1000. The card catalog should not be higher than the eye level of the students who will be using it. Sectional card catalog cabinets that can be more readily recycled for other purposes should be considered if the catalog is to be automated within a few years.

Automated catalogs will require adequate terminals for the number of users. Several factors will need to be considered in determining the number of terminals needed, including whether or not the catalog will be networked to other parts of the building. As more school library media centers automate, recommendations will be easier to make.

Accessories: Size of program will determine the need for atlas and dictionary stands, book trucks, file cabinets, paperback racks, periodical tables, reference furniture, step stools, etc. For example, revolving dictionary stands that can be placed on top of a table or a shelf, or a combination of an atlas and dictionary stand may suffice for a small school.

Shelving: Shelving should be adjustable and moveable rather than built-in. It is available in wood and in metal, and combinations of wood and metal. In determining type and placement of shelving consider the following:

- Free-standing double-faced stacks placed in rows of 4-6 sections is the most preferred stack arrangement.
- Single-faced units placed around outside walls is recommended only in very small library media centers.
- Counter height shelving may be used for picture books, reference books, and to create special interest areas.
- Special shelving will be needed for periodicals, audiovisual software, displays, and equipment.
- Shelves should not be more than two thirds full. It is recommended that the top and bottom shelves be initially reserved for collection expansion or used for display.
- To insure continuity, purchase enough shelving for future needs.
- Adjustable shelving that can fall apart if one metal clip is removed should be avoided.
- Backstops should be added to open shelving to avoid books sliding to the shelf behind.
- Shelves that are longer than 36" may warp.

•*Dimensions:*
Standard shelving units are three feet long and can be purchased with from three to seven shelves (including the base shelf). Ideally, the lowest shelf should start 6"- 8" from the floor. The height of the shelves should be appropriate to the age and size of the students (five to six feet for elementary students; six to seven feet for secondary students). When calculating how many linear feet of shelving will be needed use the following:

Picture/thin: 20 books per foot/ 60 books per shelf length
Standard size: 10 books per foot/30 books per shelf length
Reference books: 6 books per foot/18 books per shelf length
Periodicals: 1 per foot for display purposes

To calculate how many linear feet of shelving are required for a collection, take the total number of volumes to be housed and divide by the number of books per foot. For example, a primary collection of 5,000 volumes consisting of picture and thin books would require a total of 250 linear feet of shelving (5,000 / 20). Remember - shelves should only be two-thirds full. To allow for this, multiply the number of linear feet required times 1.33. Example: 250 x 1.33 = 332.5, or 333 linear feet of shelving.

Use the following chart to determine how many linear feet there are per standard size unit of shelving.

Number of Shelves per Unit	Linear Feet per Single Faced Unit	Linear Feet per Double Faced Unit
3	9	18
4	12	24
5	15	30
6	18	36
7	21	42

When arranging spaces it is necessary to know how many volumes can be housed per unit. To determine how many volumes per unit use the following chart.

Number of Shelves per Unit	Type of Book	Single Faced	Double Faced
3	picture/thin	180	360
	standard size	90	180
	reference	54	108
4	picture/thin	240	480
	standard size	120	240
	reference	60	120
5	picture/thin	300	600
	standard size	150	300
	reference	90	180
6	picture/thin	360	720
	standard size	180	360
	reference	108	216
7	standard size	210	420

When determining depth of shelving consider the following:

- Use 10 inch shelf depth for standard size books.
- Use 12 inch depth for picture books, reference books, and periodical and audiovisual storage.
- Equipment storage will require 18 -24 inch shelf depth.

Picture books may also be housed in book bins. A new approach to shelving picture books is in modular cubes that can be assembled into different shapes and sizes. These are available in different colors, and some furniture vendors make kits available to help in creating designs.

Furniture Arrangement

Effective use of a library media center is enhanced by well placed furniture. If furniture is purchased from a vendor, or if the architect is purchasing it, a floor plan may be provided. If not, a floor plan can be developed by using graph paper and furniture templates. Gaylord markets a furniture layout kit for library media centers. It contains graph paper, a library furniture template, and guidelines for layout. To obtain one, write to Gaylord, P.O. Box 4901, Syracuse, New York,13221. Tell them whether you are planning, building, or renovating a library and mention this publication.

A good floor plan takes into consideration the design elements mentioned earlier in this booklet and uses shelving and furniture to delineate spaces for different functions. When determining the placement of shelving, keep in mind that shelves should not be placed next to walls with heat ducts. Rectilinear placement is preferred to random and diagonal placements, which will require more space and may interfere with traffic flow.

Remember that free standing shelving is preferred except in the smallest of libraries. Try to place shelving in a pattern that will provide visibility from the circulation desk. While low shelving provides good visibility, it takes up more floor space, and may take away from room needed for seating or other functions

The following guidelines for spacing are recommended to avoid crowding and to ensure handicapped accessibility.

- 3' between rows of shelves
- 5' between shelves and furniture involving seating
- 5' between two tables with back to back seating
- 3' between tables and walls or between ends of shelves and other furniture that does not involve seating
- 4' between table ends and rows of shelves

In developing or evaluating proposed floor plans it is helpful to look at different floor plans. See Appendix C for this purpose.

CHECKLIST FOR EDUCATIONAL SPECIFICATIONS

The following checklist suggests the kinds of information that will be important to give to the architect. ***It is extremely important to define the program beyond the limitations of the present facility and describe activities and services that are planned for the future.*** This checklist is intended as an example only: each school will need to develop its own. Small schools may not require such a comprehensive list. Large schools may require more detail.

Description of Library Media Program: In a descriptive paragraph, include the following:

- •Mission statement
- •Objectives
- •Activities relating to teaching and learning
- •Services provided
- •Administrative functions
- •Other

Patterns of use:

- •Maximum number of students at peak period of day_____
- •Individual use _____
- •Classes (number able to accommodate at peak usage times)_____
- •Extended hours _____
- •Staffing_____
- •Other _____

Space: Indicate square feet, use of space, relationships of spaces to each other, and any combination of use. Equipment and furniture needs may also be included.

- •Circulation area_____
- •Main reading area (includes student seating, reference area and stack area, story area.) _____
- •Listening and viewing area _____
- •Conference rooms _____
- •Equipment storage _____
- •Periodical storage _____
- •Office (s) _____
- •Workroom _____
- •Production area (define kinds of production that will take place)_____
- •Multi-purpose room (library classroom, meeting room, etc.)
- •Other _____

Collection: Use this information for determining shelving needs.

	Now	10 years
•Circulating print collection		
Fiction	_____	_____
Non-fiction	_____	_____
Other	_____	_____

•Reference collection

Books	_____	_____
Microfiche	_____	_____
CD-ROM	_____	_____
Other	_____	_____

•Periodicals

Current	_____	_____
Back issues	_____	_____
Microform	_____	_____
Other	_____	_____

•Non-print collection

Computer software	_____	_____
Filmstrip kits	_____	_____
Records	_____	_____
Audio tapes	_____	_____
Compact discs	_____	_____
Video tapes	_____	_____
Video discs	_____	_____
Transparencies	_____	_____
Posters, charts	_____	_____
Maps	_____	_____
Other	_____	_____

•**Equipment**: Indicate how many and where to be stored for circulation or where to be used in library. This information may be included in the descriptions of space requirements.

Copy machine _____
Laminating/drymount press _____
Duplicating machines _____
Computers _____
Computers with CD-ROM _____
Microform readers _____
Microform reader /printer _____
Filmstrip projectors _____
Record players _____
Cassette players _____
Slide projectors _____
16 mm projectors _____
Video players _____
Video disc players _____
Overhead projectors _____
Opaque projectors _____
Video production equipment _____
Audio production equipment _____
Equipment carts _____
Other _____

Furniture: This information may be included in the descriptions of space requirements.

- •Tables _____ Height_____
- •Index tables _____
- •Chairs _____ Height_____
- •Chairs, lounge _____
- •Carrels, study _____
- •Carrels, wet _____
- •Shelves (linear feet)
  - Book _____ Height_____
  - Reference _____ Height_____
  - Periodical _____ Height_____
  - Non-print _____ Height_____
  - Equipment _____ Height_____
  - Other _____ Height_____

- •Files _____ Height_____
- •Atlas stand _____ Height_____
- •Dictionary stand _____ Height_____
- •Library catalog._____ Height_____
- •Cabinets, microfiche, etc._____
- •Other_____

Other considerations to discuss with the architect:

- •Telephone lines.
- •Electrical outlets
- •Location
- •Lighting

MONITORING THE PROGRESS

After meeting with the architect and going over educational specifications it will be necessary to maintain a high level of involvement. Attend all meetings to have continued input as cuts and changes occur. Give careful consideration to the architect's plans. Learn the scale of the plans and measure them with a scale ruler. If furniture placement is not indicated in the plans, develop a layout to be sure that there is enough space for the collection, seating, and other items. Read the blueprints to learn where the heating ducts and electrical outlets and other essentials are located. To help in reading the plan use the following checklist.

_____Are there enough electrical outlets in the necessary areas?

_____Is there a telephone line?

_____Does the furniture arrangement allow for visibility, adequate traffic flow and avoid crowding?

_____Are related areas near each other?

_____Are there architectural enhancements that interfere with the function of the library media center?

_____Is the lighting adequate and in the correct position for the shelving?

_____Is there room for expansion and flexibility to accommodate a changing program?

_____Is the library media center located centrally and separate from high noise areas?

_____Is there sufficient office space?

_____Is shelving adequate to house future collections?

_____Other.

TIPS ON MOVING A LIBRARY COLLECTION

When a library media center is built or remodeled it will be necessary to move the collection from the old facility into the new. Basic tips for making this a smooth move follow.

•Before moving, weed the entire collection. It doesn't make sense to move materials that will not be used or are out of date.

•Make an inventory of the collection as well as furnishings and equipment to help keep track of what should go where.

•Make sure that someone qualified is supervising the packing so that books won't get reversed in boxes.

•Use standard boxes that are the same size and stackable. Make sure that they are not too large or too heavy to lift.

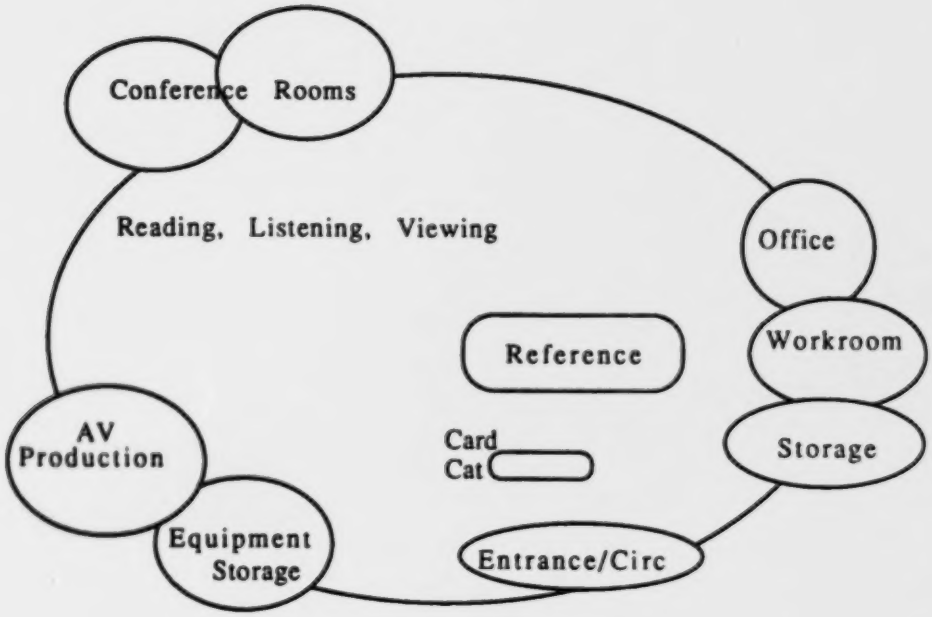
•Pack in order and number the boxes in order, labelling the contents on at least two sides of the box.

•Stacks can be numbered and shelves labelled so that each box will be specific to both bookstack and shelf.

•Determine the current linear feet and the new linear feet of shelving and make a simple ratio. For example, if there are currently 200 linear feet, and if there are 300 linear feet in the new library, the ratio is 2:3. This provides a guide as to how much to fill each shelf. When shelving, keep in mind that different parts of the collection grow at different rates and adjust for this when shelving in the new library.

Appendix A

BUBBLE DIAGRAM



Appendix B

SAMPLE EDUCATIONAL SPECIFICATIONS

The following educational specifications and correspondence are provided by Mardean Badger, Librarian at Plymouth Area High School, Plymouth, New Hampshire.

PLYMOUTH ELEMENTARY SCHOOL

LIBRARY MEDIA CENTER
NEW FACILITY SPECIFICATIONS

Prepared by
Mardean Badger, Librarian
Norman Desfosses, Media Specialist
21 December 1988

GENERAL GUIDELINES

Location

> "The library media program (must be) fully integrated into the curriculum, serving the school's educational goals and objectives by providing access to information and ideas for the entire school community" (Information Power, Guidelines for School Library Media Programs, ALA/AECT 1988).

Therefore, the Elementary Library Media Center should be centrally located within the elementary school equidistant from all learning areas. It should be near the front entrance, for efficient delivery of mail, equipment, etc., but should be away from all noise-producing areas (such as gymnasium, cafeteria, music and shop areas, heavy traffic areas, etc.). The Library Media Center should also be accessible after school hours from the front entrance, without permitting access to the rest of the building.

There will be no other areas or programs which will require access by going through the Library Media Center. In addition to regular classrooms, some other facilities (such as teachers' planning/work area and student computer lab) may be conveniently located nearby. However, any inner doors between the Library and these areas should be limited, due to the difficulty of equipping these doors for the Library security system.

Staff

The Elementary Library should be staffed by a minimum of one full-time certified library media specialist and a minimum of one full-time library aide.

According to the Minimum Standards for New Hampshire Public Elementary School Approval (1987), an elementary school with an enrollment of at least 600 children shall provide a full-time certified librarian, and one full-time library aide shall be provided in a school with 300 or more children.

As stated in Information Power, Guidelines for School Library Media Programs (ALA/AECT 1988), "Each school, regardless of size or level, has at least one full-time library media specialist who serves full-time as the head of the library media program within the building." The school library media specialist "is responsible for the planning, development, implementation and overall evaluation of the entire program ... (and shall) have master's level education with preparation in library and information science, management, education, media, communications theory and technology."

The library aide will perform the routine clerical and technical duties, thus freeing the professional library media specialist to work directly and closely with students and faculty in the school.

Adult and student volunteer workers may be used as needed, but they are NOT to be considered as substitutes for trained, paid clerical and technical staff.

Elementary and high school library staff (and any SAU-level library professional) shall cooperatively implement a coordinated K-12 library media program throughout the SAU.

Space Requirements for Specific Areas

Student Capacity: seating will accommodate 10%-15% of anticipated student enrollment. (Projected enrollment is 600 students.)

Total Area: 3200 square feet

200 square feet CIRCULATION AREA

-Entry/Circulation Desk areas and periodical backfiles.

2400 square feet PUBLIC AREA

-Card catalog, current periodicals, indexes, vertical files, and student copier.

-Seating for primary students (grades K-2) and for upper elementary/junior high students (grades 3-8).

-Shelving for print materials.

-Multi-media areas, including a listening viewing area, student computers, microfiche, audiovisual materials shelving, and materials production areas.

600 square feet OFFICE/TECHNICAL AREAS

-Librarian's Office.

-Technical Processing (Support Staff) work area.

-Equipment maintenance and storage areas.

<<SPECIFICATIONS FOR EACH AREA ARE DETAILED ON THE FOLLOWING PAGES>>

AREAS AND SPECIFICATIONS

General Specifications:

The Library Media Center will be a closed room, with walls, to minimize noise and security problems. Entry doors will be quiet, swinging doors, which can be secured in open position for equipment access and will be wide enough to handle equipment carts and handicapped access.

The entire Library Media Center area will be carpeted (with the possible exception of certain work areas). Sufficient electrical outlets will be provided throughout all areas, mounted on walls or work surfaces. Overhead lighting will be sufficient and controllable from the Circulation Desk area, with capability of darkening individual areas. Windows will be used where feasible to make use of available natural light, but all windows will be equipped with room-darkening shades. Interior walls of office and technical areas will have glass to enable visual supervision of activities. Temperature control (air conditioning), ventilation and acoustical treatment will be provided throughout.

All furnishings and equipment will be purchased from reputable, experienced suppliers of library and school furniture, in standard finishes and standard sizes (no special order designs), which can be supplemented at later times. All tables and chairs will be constructed of solid hardwoods, with plastic laminate tops; all countertops and other work surfaces will have plastic laminate tops unless otherwise specified. Use of study carrels (individual or groups) should be restricted unless absolutely necessary.

[Note: Equipment, furniture, shelving, etc. from current Library may be used where appropriate.]

CIRCULATION AREA (200 square feet)

Circulation Desk

Circulation Desk must be immediately adjacent to the main door and be appropriately located to provide visual supervision over all areas of Library Media Center. Access to area behind Circulation Desk is restricted to library workers only and should lead directly into staff office and work areas. Circulation Desk area will be connected with school's internal intercom system and will house switches to control lighting and electrical outlets.

Circulation Desk will be 32" high and long enough to handle two students in front and two adult workers behind. Circulation Desk will have recessed well to hold 6 card trays and a book return slot with depressible-top book return truck.

There will be sufficient counter space, electrical and phone connections for computer(s), printer(s), and modem(s) to handle 2 on-line circulation sites and the security system equipment.

Also provided will be table or counter work space and 200 linear feet of heavy-duty adjustable shelving for reserve materials and back issues of periodicals.

Circulation System (on-line): Specifications for system (such as Winnebago CIRC/CAT or Follett Circulation Plus/Catalog Plus) will be inserted when system is selected. Two circulation stations and equipment will be provided.

Security System: Activating and deactivating equipment for security system will be at Circulation Desk. Security gate will be at main entrance of Library Media Center, with other exit doors equipped with a warning signal. (All materials will be equipped with security devices, preferably non-magnetic, which produce audible signal if taken from Library Media Center without being properly checked out.)

PUBLIC AREA (2400 square feet)

Card Catalog: Will be located near Circulation Desk and near table space for working area. Free standing on movable base, with a minimum of 40 drawers in add-on units, with pull-out reference shelves. Maximum height 36" to 46". Allow sufficient space and electrical outlets to accommodate upgrading to on-line card catalog and user-access monitors with printers.

Coin-Operated Copier: Plain paper copier for student use, which will allow reduction and enlargement, copying from oversize originals, etc. Near Circulation Desk, which will provide for change and supervision.

Vertical File Cabinets: Two or three 3-drawer locking file cabinets for holding subject folders of pamphlet-sized information for patron use.

Periodical Shelving (current issues): Display of single copies of 40 titles of current periodicals issues on 50 linear feet of adjustable slanted shelves, compatible with book shelving, maximum 42" counter height or 5-6 ft. wall-mounted. Display capability for 6 daily newspapers.

Periodical Indexes: about 6 linear feet of shelving near table work area and adjacent to Circulation Desk and Card Catalog.

SEATING

One primary student area (minimum capacity 28 students) with tables (3 x 5 ft., 24" high) and chairs (15-3/4" seats), no more than 4 students per table. Primary student area (including shelving) should be completely separate from any other student areas.

Two separate sections for older students (total minimum capacity 52 students) with tables (3 x 5 ft., 28" high) and chairs (17" seats), no more than 4 students per table. Locate these two sections so that two classes may be accommodated at one time, without interference with each other, or so that one class receiving instruction will not disturb other individuals or group.

PRINT SHELVING

All shelving will be adjustable (single-faced and double-faced) steel shelving, with closed ends and tops. No shelf sections are to exceed three feet in length, but may be attached end-to-end with others. All counter-type shelving is to be equipped with casters, to allow flexible placement to define interest or use areas and to facilitate visual supervision from staff areas. All wall shelving is to be bolted into walls for safety.

Primary (picture) books: 240 linear feet, 12" deep, maximum counter height 42".

Fiction
Non-Fiction

All other books: 1125 linear feet, 12" deep, maximum counter height 42" or maximum wall height 5-6 ft.

Fiction
Non-Fiction
Biography
Reference
Professional Books

Paperback Books: provide a combination of linear shelving and movable spinner racks to accomodate variety of paperback sizes.

MULTI-MEDIA AREAS

Those areas which relate to the use and production of non-print materials and which also demand a higher level of activity should be grouped in proximity to each other, but separated from quiet areas (not necessarily with walls). These areas include Listening Vieving Area, Materials Production Area, Audiovisual Materials Shelving, Microfiche, Computers, etc. Electrical strip outlets (on several different circuits) will be mounted on the walls or table-tops and controlled from the Circulation Desk. Acoustical treatment and light control (darkening of separate sections) are crucial.

Listening Vieving Area: 6 stations will be provided for individual student use of a variety of equipment, such as filmstrip viewer, sound filmstrip projector, tape recorder, record player, overhead projector, slide projector, screen, headsets, etc. Stations will be along counter top areas (no separate carrels) to provide flexibility for use by individual students or small groups. Some shelves will be provided for storage of extra equipment. Continuous strip wall-mounted or table-mounted electrical outlets (multiple circuits) will be controlled from Circulation Desk. Proper location of this area and furniture arrangement will minimize noise and distractions for quiet areas.

Student Computers: 2-4 computers (with monitors, double disk drives, printers) will be provided for student use. Telephone connection for modem will be provided for access to on-line databases. Flat desk-top or counter-top work areas are preferable to separate carrels. Located adjacent to Listening Vieving Area and Circulation Desk.

Microfiche: 3 microfiche/microfilm readers and 1 reader/printer. Cabinets to store microform materials and shelves for indexes. Near Listening Vieving Area, periodical indexes, and Circulation Desk.

Audiovisual Materials Shelving: 100 linear feet of adjustable shelving, 12" deep, maximum height 42" counter or 5-6 ft. wall-mounted, for variety of sizes and types of materials (including boxed materials). Separate, movable cabinets (on casters) for sound filmstrips and records. Near the Listening Vieving Area (for previeving equipment access) and near Circulation Desk (for staff assistance and supervision).

Materials Production Areas: Workspace and appropriate equipment for student, faculty and library staff production of materials, such as graphics, mounting, laminating, transparencies, video and audio taping, etc. Large counter and table-top work surfaces. Locking storage areas for supplies. Electrical connections with several separate circuits, TV and satellite connections. Shelf space for permanently-housed audio/video equipment (radio, stereo, TV, VCR, etc.). Provision for interactive satellite communications. Sink with running hot and cold water. Acoustical treatment and light control are crucial. This area might be a separate room to enable use as a darkroom.

OFFICE/TECHNICAL AREAS (600 square feet)

General Specifications: The technical processing and storage areas are for Library Media Center staff only. Access will be from two directions, from the Circulation Desk and from the hallway (for deliveries and equipment access). All work areas will have sufficient appropriate lighting and electrical outlets, with separate circuits where necessary. All appropriate telecommunications wiring (TV, phone, computer, etc.) will also be provided. Shelves will be adjustable and of appropriate strength for intended materials or equipment. Walls of these technical areas will have sufficient glass to provide visual supervision of activities in the public areas of the Library Media Center.

Areas will be provided for the following purposes:

Office for Librarian

An enclosed office will be provided for one professional library media specialist. Furnishings provided for Librarian will include a desk, chair, computer and printer, computer/printer workspace, locking file cabinet and about 20 linear feet of shelves. The office will also have a telephone and be connected with the school's internal communication system. This office will also provide sufficient space for Librarian and a teacher to confer on curriculum planning.

Technical Processing (Support Staff) Work Area

Appropriate area will be provided for the library aide(s) or technician(s) to accomplish the cataloging, processing, maintenance and repair of all print and non-print materials. Table and/or counter workspace will accommodate 2 to 3 people working at a time, adjacent to a sink area. Supply storage will be in locking cabinets. About 200 linear feet of open adjustable shelves will be provided for all materials being processed and for additional supplies. Each member of the support staff will have a desk area. A computer workstation (computer, printer, modem) will be nearby with a dedicated phone line. Also provided will be a copy machine, a typewriter, and locking file cabinets (for library management records, instructional materials, catalogs, display materials, etc.).

Equipment Maintenance and Storage

All shelving in this area will be heavy duty, 18"-24" deep and adjustable. About 250-300 linear feet of compact, or movable, shelving for equipment will be provided, in addition to floor space for equipment carts. Equipment repairs will require table or counter work space, shelving and locking cabinets for supplies and tools, and convenient electrical outlets. This area will have direct access to the Library Media Center and to the hallway through a wide doorway for equipment distribution. It should also be located near listening/viewing, production and instructional areas in the Library Media Center.

LIBRARY MEDIA CENTER
NEW FACILITY SPECIFICATIONS

STATISTICAL COMPARISONS

SQUARE FEET	CURRENT (412 students)	RECOMMENDED (600 students)
Circulation Area	275 sq. ft. [hs+el] (also media)	200 sq. ft. (also backfile periodicals)
Public Area	1503 sq. ft. (book shelving & seating)	2400 sq. ft. (book shelving, seating & multi-media areas)
Office/Technical Area	375 sq. ft. [hs+el] (Lib. office/tech) 270 sq. ft. [hs+el] (Media office & equip.)	600 sq. ft. (Lib. office, tech. & equip.)

SEATING	CURRENT (412 students)	RECOMMENDED (600 students)
Primary grades	18 seats	28 seats
Middle/J.H. grades	44 seats	52 seats (2 classes in separate areas)

SHELVING	CURRENT	RECOMMENDED
Primary Books	117 linear ft. (now at 97% capacity)	240 linear ft.
Middle/J.H. Books	600 linear ft. (now at 93% capacity)	1125 linear ft.

NOTE: This estimate is an approximate 50% increase in collection size. Optimum capacity for a shelf is 2/3 full; we are currently over optimum shelf capacity.

TO: Architect and Building Committee
FROM: Mardean Badger, Librarian
RE: Comments on Floor Plan, dated 1/24/89
DATE: 7 February 1989

Here are some comments about the elementary floor plan----

I still have some concerns about potential sound levels of classes passing by the media center. We need to think about how often each class will be traveling as a group past the library to another location and by which route---

Grade 3-5 pod (6 to 9 classes)
each class goes to art - to lunch - to p.e. - to music
(How often each week do the classes go to each location?)

Grade 6-8 pod (6 to 9 classes)
each class goes to lunch - to music (How often each week?)
each class goes to art - to p.e. (no problem with current center arrangement)

Grade K-2 pod
each class goes to art -to p.e. (How often each week?)
each class goes to lunch - to music (no problem with current center arrangement)

If arrangement of center areas (media center, guidance, etc.) is changed, we would still need to look at traffic patterns around media center boundaries.

I still would like to recommend that any space above the top shelves be glass, instead of open - this would provide the same visibility and feeling of openness, but would control the sound levels from outside the media center. Would also recommend some strategically-placed vertical glass areas between halls and media center to provide visibility into and/or through the media center.

Will the entrances to the media center be doorways (just openings) or will there be actual doors (glass, please)?

Of the 3 entrances to the media center, which one does the architect consider to be the primary entrance? The circulation area must be adjacent to the primary entrance.

The large set of stairs at the one entrance takes up too much program floor space.

I don't like having so many stairs into the media center. Remember, we do have to move book carts and equipment carts (not just TV's) between the classrooms and media center, and we receive many deliveries of boxes of books (requiring use of a dolly).

If only one of the 3 entrances to the media center is without stairs, then any equipment/work areas need to be near that door -- can be very disrupting to the program to constantly be moving carts all the way through other library areas to get them out of the media center and into a classroom.

Because the reading room and the computer room are accessible only after entering the library, I think we need to clarify how those two rooms are going to be used in the total school program and the library program.

I can see the reading room becoming the reading specialist's office (I see nowhere else for this) and space for some small group work, although majority of reading work would occur in the classrooms. Therefore, I don't see the Media Center having very frequent access to the room; so why not enter through the hall? If this room is to double as a small group work area or conference room accessible from the media center, it would be inconvenient for any staff member to have his/her desk in there.

Our current computer room is used by grades 5 through 8 for group computer instruction. Will computer instruction continue in this manner? Will this be the room for group computer instruction? If so, that will increase the group traffic in and out of the media center. Any possibility of dual access (through the media center and direct from the hall) to provide for more flexibility in use?

Paul mentioned one room in each pod being equipped with multiple computers--would teachers prefer switching rooms to access these computers or prefer traveling to media center area for group computer instruction?

Maybe we need to differentiate between computer use and computer instruction?

Keep me posted on discussions about the media center. I think it's very important that we (Norm and I) have a chance to speak with the architect sometime about the relationship between the media center facility and the program.

Appendix C

FLOOR PLANS

The floor plans found on the following pages are provided for the purpose of giving the reader ideas for arranging library media center space. The first four plans were drawn by Susan Snider to compare programs and facility sizes. The first represents the New Hampshire minimum standard for a school built for 500 students, the two plans for Library Media Center II add storage and work space, and the plan for Library Media Center III represents the recommendations for space to support active programs.

The remaining plans were selected because they illustrate much of what has been discussed in this book. The floor plans from Texas are from the Texas Education Agency publication, *Library Learning Resources Facilities: New and Remodeled.* The floor plan from Petosky, Michigan was provided by the architect, Lee Brockway. The plan from Newmarket, New Hampshire is a revision of a plan provided by Gordon Bean of Creative Interiors in Amherst, New Hampshire.

MIDDLE SCHOOL
LIBRARY MEDIA CENTER

Four Interpretations

The four drawings in this series represent four library media centers located in different schools. Each school has a core facility to house 500 students; however the current population in each school is 425 students. Each facility can house at least 8,000 books and 1,500 non-print items, and seat at least 10% of the students.

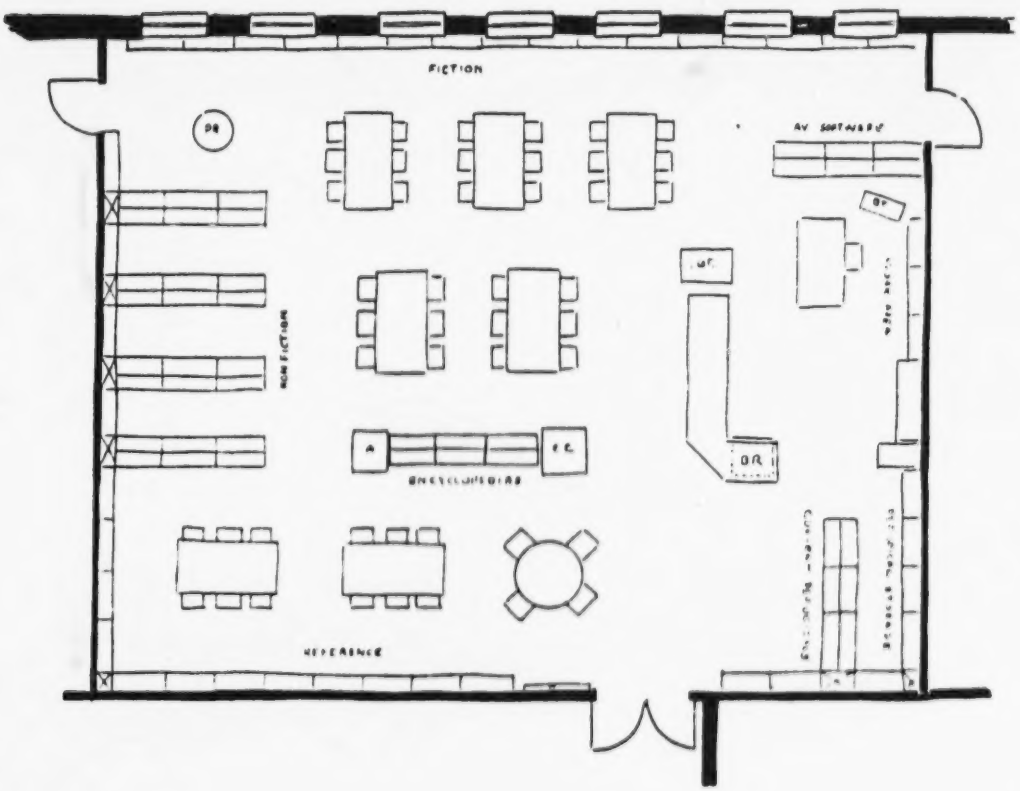
ABBREVIATIONS

A	-Atlas
BR	-Book Return
BT	-Book Truck
CC	-Card catalog
CD-ROM	-Compact disk/read only memory
COM	-Computer
D	-Display
DIC	-Dictionary stand
MFC	-Microfiche cabinet
MFR	-Microfiche reader
PB	-Paperbacks
PR	-Printer
SFS	-Sound filmstrip
VF	-Vertical file
VP	-Video player

LIBRARY MEDIA CENTER I. This facility houses a very traditional, print oriented library program. Students come to the library in small groups occasionally, but most of the time they come together as a class when there is a research project or an assignment to find a book for a book report. The facility was built to meet the minimum standard of 2,000 square feet. It has enough shelving to meet the minimum collection requirement, and presently has enough seating. If the school grows to the capacity of 500 students, additional seating will need to be placed around the tables, or an additional table will be crowded into the space. The work area and limited AV software and periodical storage is contained within the open space. There is no area for storing equipment on carts, or bulky items on shelving.

Enrollment: 425

Floor Space: 2,000 square feet **Seating:** 46 **Shelving:** 1,200 linear feet



LIBRARY MEDIA CENTER II - Plan A. This facility supports a more unified library media program than Library Media Center I. There is room for more seating and space for a microfiche reader, a computer, and a listening and viewing station. In addition to the 2,000 square feet minimum, there is a separate work/production area and an equipment/ AV software/ and periodical storage area.

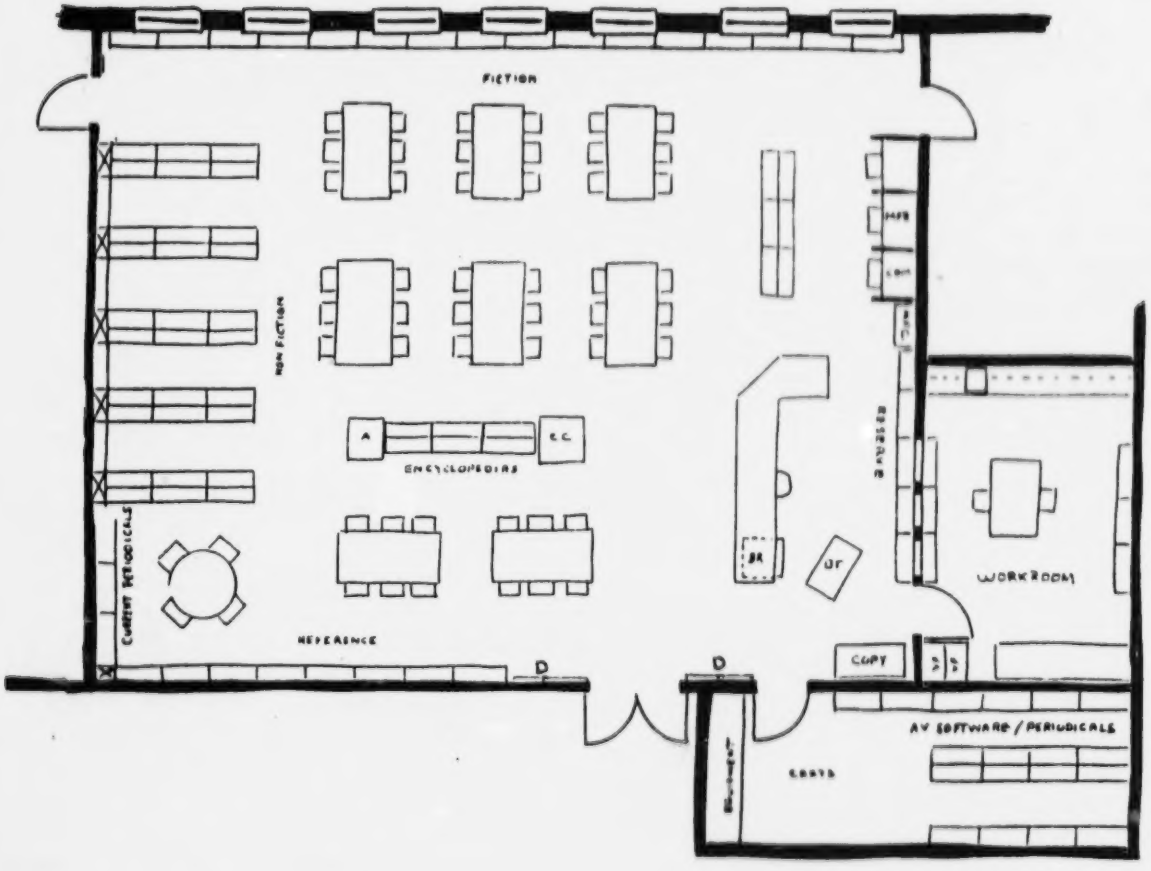
Enrollment: 425

Floor Space:

Public Area	2,000 square feet
Workroom	260 square feet
Storage	250 square feet
TOTAL:	2,510 square feet

Seating: 55

Shelving: 1,100 linear feet + workroom and storage shelving



LIBRARY MEDIA CENTER II - Plan B. This facility supports a more unified library media program than Library Media Center I. There is now a microfiche reader, a computer, and a listening and viewing station. In addition to the 2,000 square feet minimum, there is a separate work/production area and an equipment/ AV software/ periodical storage area.

While this facility is more attractive and spacious than Plan A, there is less space for seating and fewer total linear feet of shelving because the free-standing shelving is 42 inches high rather than 72 inches high. Greater visibility is possible with countertop height shelving; however, valuable space for collection and seating is forfeited.

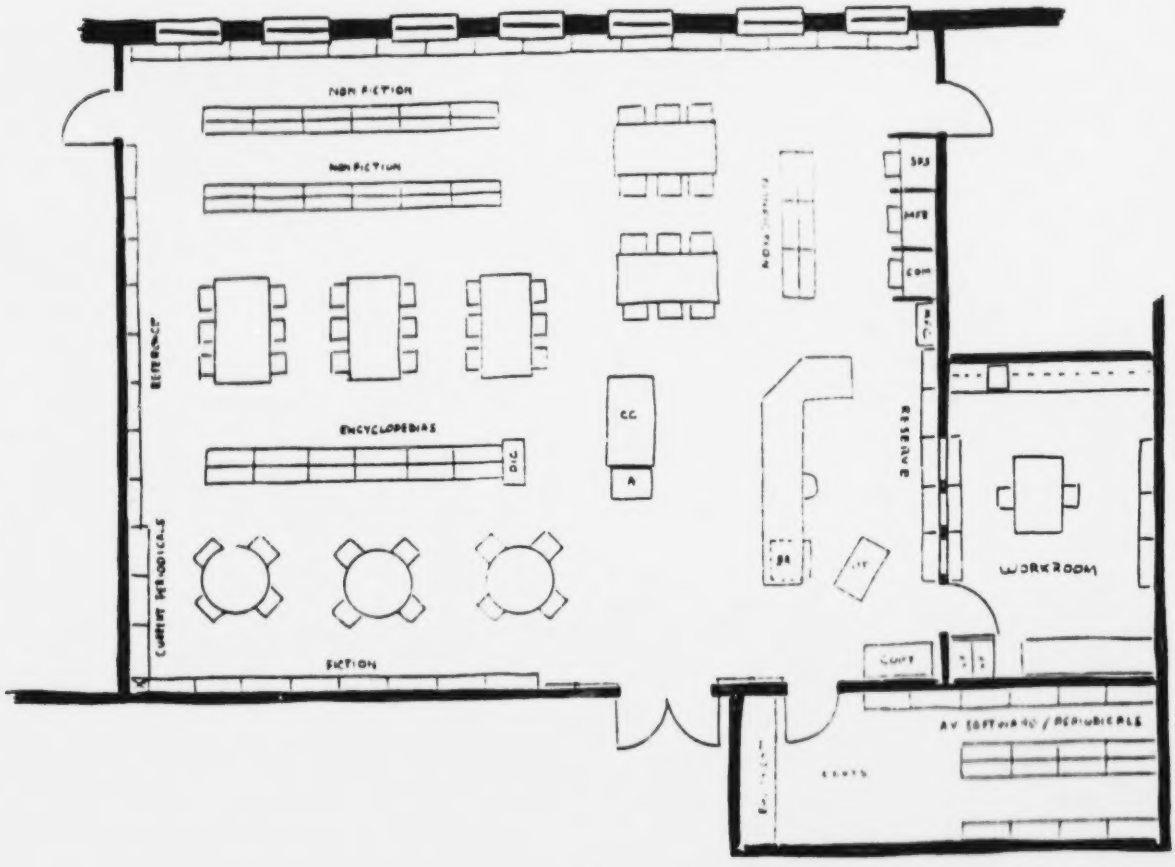
Enrollment: 425

Floor Space:

Public Area	2,000 square feet
Workroom	260 square feet
Storage	250 square feet
TOTAL:	2,510 square feet

Seating: 45

Shelving: 900 linear feet + workroom and storage shelving



LIBRARY MEDIA CENTER III. This facility is able to support a very active program and to seat over 15 percent of the student population. There is room for two to three classes to use the facility during the same period. Multiple activities can take place during any given time. There is room for a larger reference and research collection, including a CD-ROM station, more listening and viewing stations, and microfiche readers. A new area for periodical storage provides for more equipment and AV software storage. The room adjacent to the reference area has a folding divider and can be used for a variety of functions including a library classroom, conference rooms, and video production. Five computer workstations are networked to a printer for student use. Because there are fewer windows in this facility, it is possible to use 72 inch shelving near the back wall.

Enrollment: 425

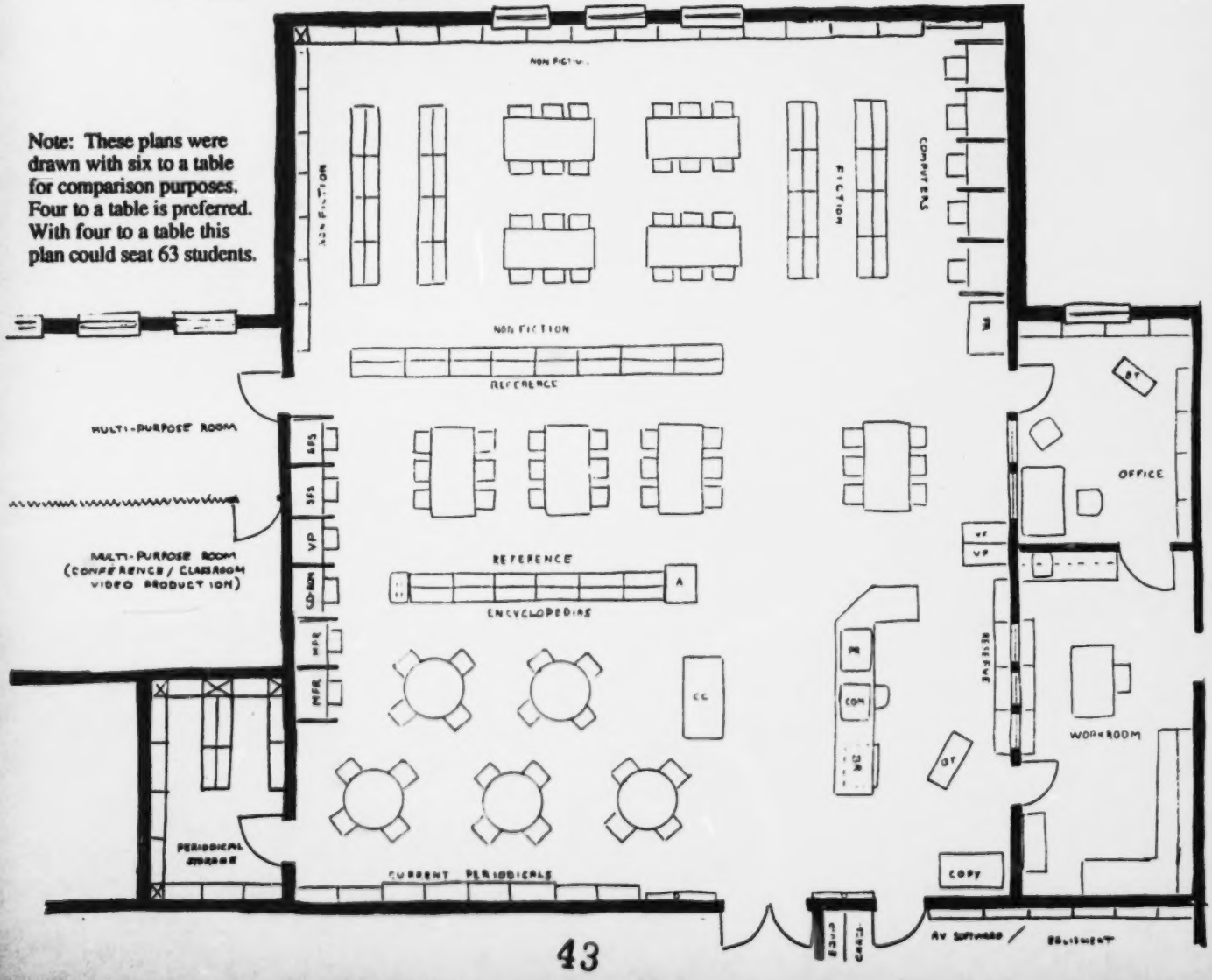
Floor Space:

Public Area	3,000 square feet
Workroom	300 square feet
Storage	400 square feet
Office	200 square feet
Multi-purpose	600 square feet
TOTAL:	4,500 square feet

Seating: 79 + seats in multi-purpose room

Shelving: 1,300 linear feet + workroom and storage shelving

Note: These plans were drawn with six to a table for comparison purposes. Four to a table is preferred. With four to a table this plan could seat 63 students.



E.C. Brice Elementary School
Mt. Pleasant ISD
310 East Magnolia
Mt. Pleasant, TX 75455

CONTACT:
Mr. Robert Rountree, Supervisor of Library Services (214) 572-9536

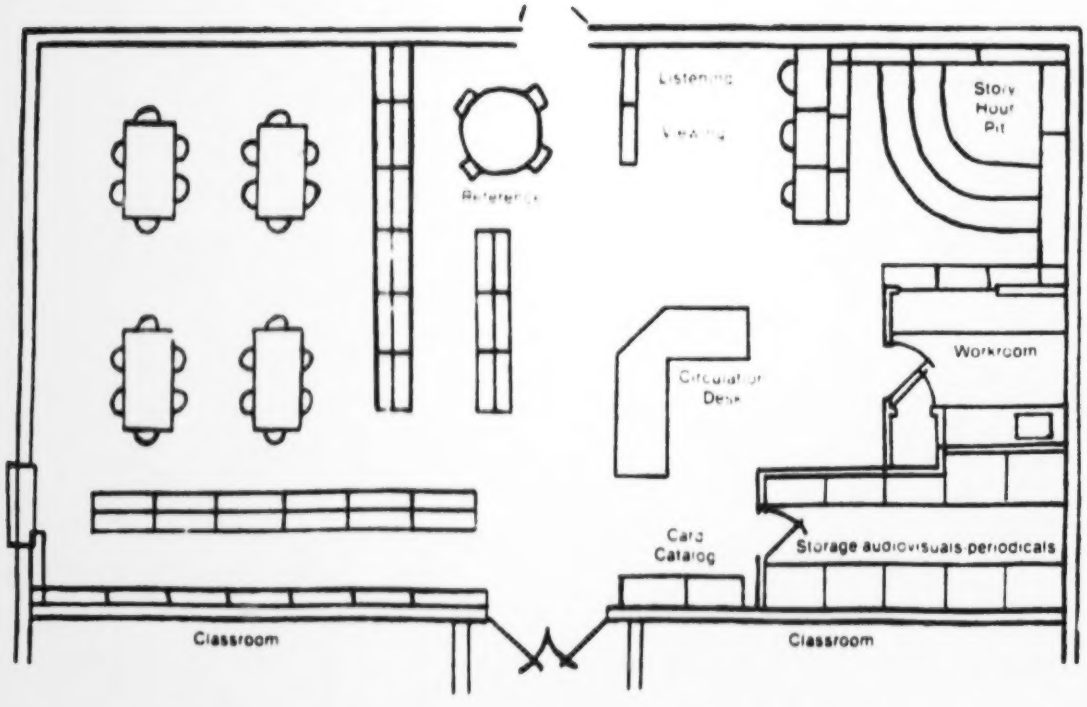
GRADES:
K-3

ENROLLMENT:
305

STAFF:
1 library aide (Materials processed centrally)

FLOOR SPACE:
1,437 square feet

HOLDINGS:
4,123 volumes
913 audiovisual software items



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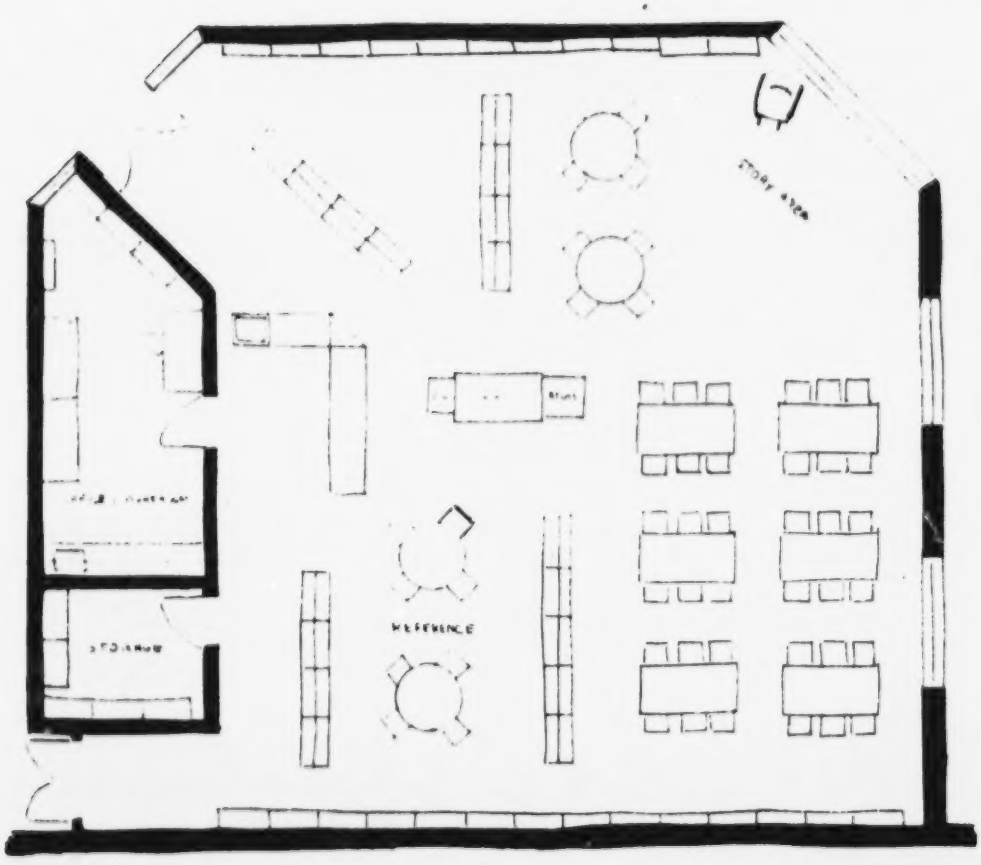
Newmarket Elementary School
243 South Main Street
Newmarket, NH 03857

Contact Person:
Carolyn Marvin
(603) 659-2192

Grades: 1-6 **Enrollment:** 510

Floor Space: 2,400 square feet **Seating:** 50 **Shelving:** 700 linear feet



Amelia Elementary School
South Park ISD
1025 Woodrow Street
Beaumont, TX 77705

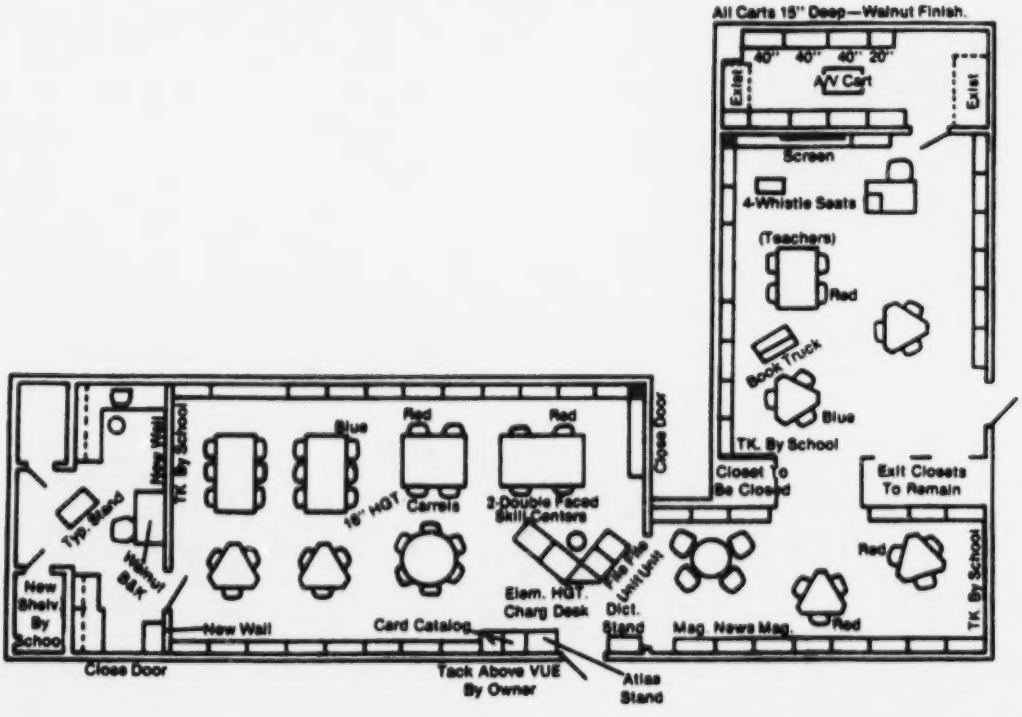
CONTACT:
Mrs. Dora Nisby, Coordinator of Library Services

GRADES:
K-3

ENROLLMENT:
570

FLOOR SPACE:
2,246 sq. ft.

HOLDINGS:
6,000 volumes
813 audiovisual items



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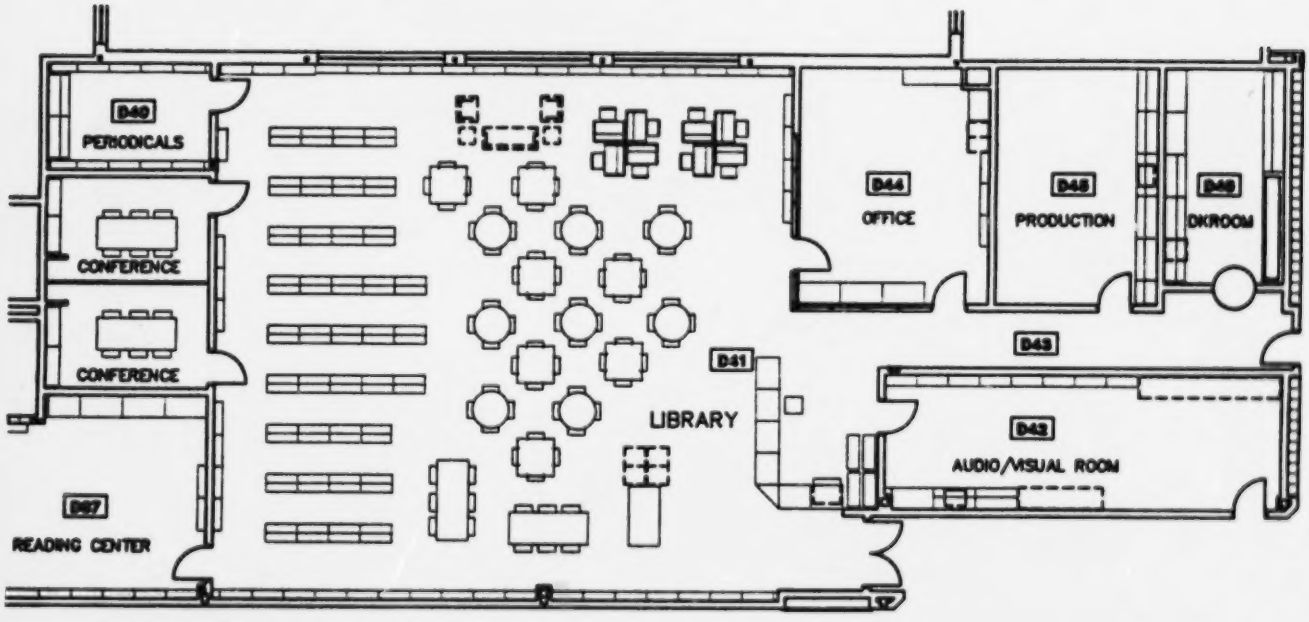
Petosky Middle School
Petosky, Michigan

Contact Person:
Rhea Murray
(616) 347-6023

Grades: 6-8 **Enrollment:** 460

Floor Space: 5,000 square feet **Seating:** 80 **Shelving:** 1,500 linear feet

This is a working plan. The school is due to open in the fall of 1990.



NEW MIDDLE SCHOOL
PUBLIC SCHOOLS OF PETOSKEY
PETOSKEY, MICHIGAN

FANNING/HOWEY ASSOCIATES, INC.
ARCHITECTS AND ENGINEERS
MICHIGAN CITY, INDIANA

David Crockett Junior High School
Irving ISD
2431 Hancock
Irving, TX 75060

CONTACT PERSON:
Ms. Sherry DeBorde (214) 259-2505

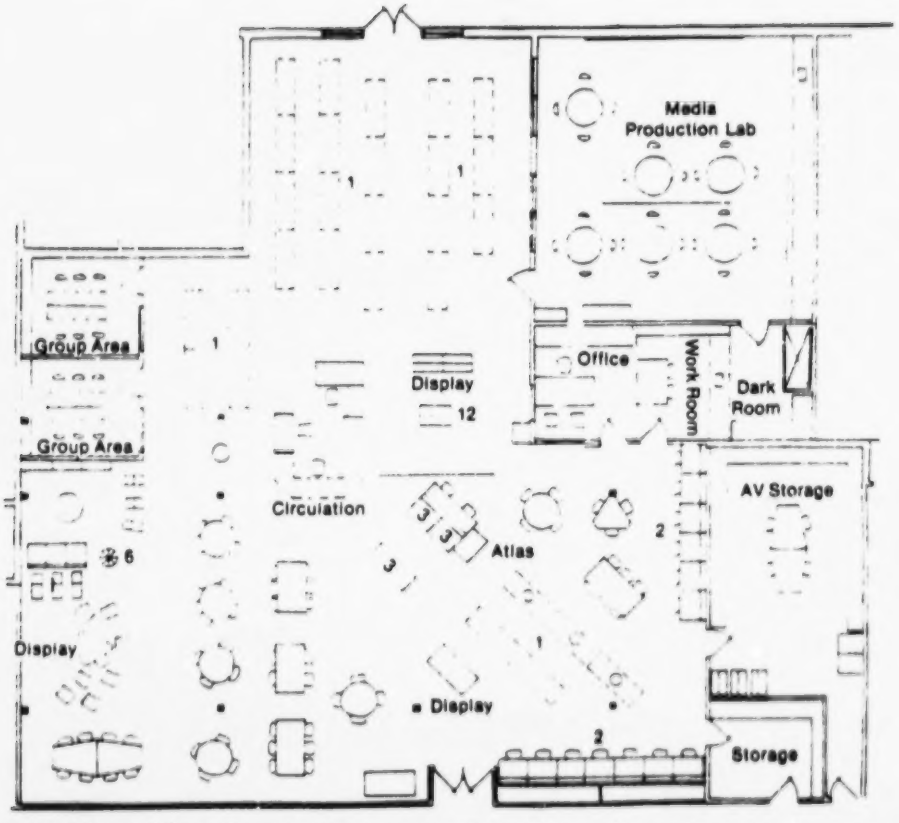
GRADES:
6-8

ENROLLMENT:
810

STAFF:
1 full-time learning resources specialis
2 part-time library clerks

FLOOR SPACE:
6,400 sq. ft.

HOLDINGS:
9,597 total volumes



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P.E. Wallace Junior High School
Mt. Pleasant ISD
P.O. Box 1117
Mt. Pleasant, TX 75455

CONTACT PERSON:
Mrs. Norween Parker (214) 572-3684

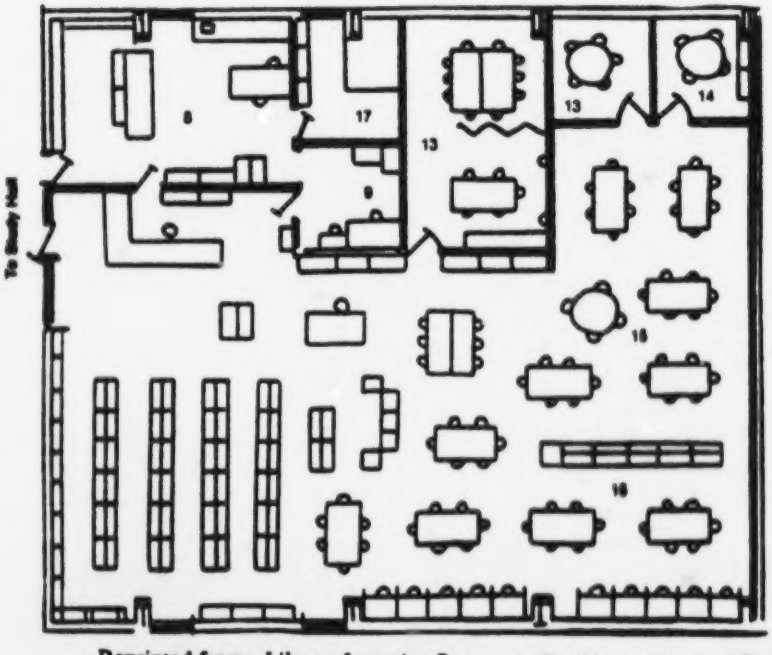
GRADES:
6-8

ENROLLMENT:
759

STAFF:
1 certified librarian
1 assistant librarian

FLOOR SPACE:
4,000 sq. ft.

HOLDINGS:
7,393 volumes
1,227 audiovisual software items



Number Codes

1. Stacks
2. Carrels
3. Card Catalog
4. Audiovisuals
5. Circulation Desk
6. Periodicals
7. Reference
8. Workroom
9. Office
10. Lounge Area
11. Listening Stations
12. File Cabinets
13. Conference Room
14. Professional Collection
15. Classroom Area
16. Individual Study Area
17. Storage

Reprinted from: *Library Learning Resources Facilities: New and Remodeled.* Austin: Texas Education Agency, 1982.

Mt. Pleasant High School
Mt. Pleasant ISD
P.O. Box 1117
Mt. Pleasant, TX 75455

CONTACT PERSON:
Mrs. Bobbie Bell, Librarian (214) 572-3682

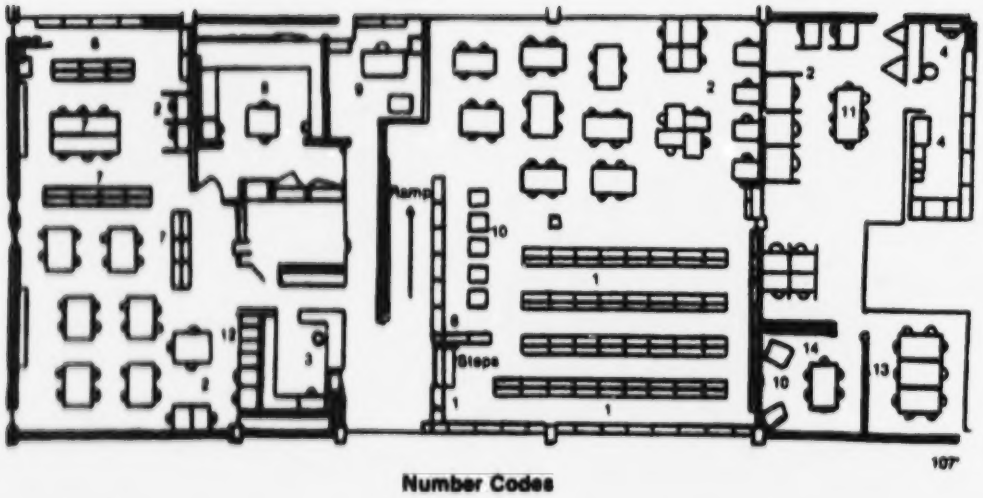
GRADES:
9-12

ENROLLMENT:
1,152

STAFF:
1 certified librarian
1 clerk typist
1 AV aide

FLOOR SPACE:
5,136 sq. ft.

HOLDINGS:
12,000 volumes
3,121 AV software items



Number Codes

1. Stacks
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6. Periodicals
7. Reference
8. Workroom
9. Office
10. Lounge Area
11. Listening Stations
12. File Cabinets
13. Conference Room
14. Professional Collection
15. Classroom Area
16. Individual Study Area
17. Storage

Reprinted from: *Library Learning Resources Facilities: New and Remodeled.* Austin: Texas Education Agency, 1982.

Snyder High School
Snyder ISD
3801 Austin
Snyder, TX 79549

CONTACT PERSON:
Mrs. Durelle Gorman (915) 573-6301

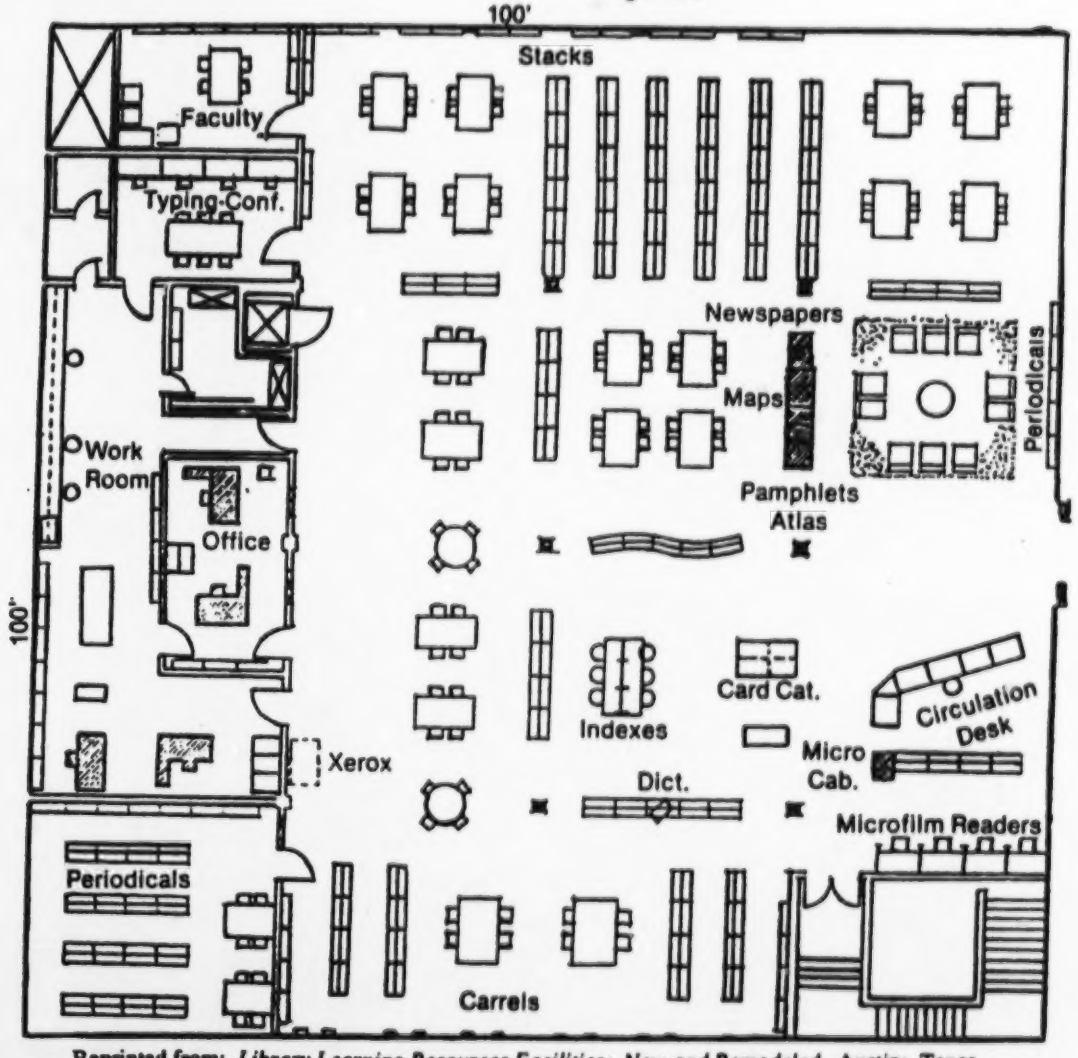
GRADES:
9-12

ENROLLMENT:
840

STAFF:
1 full-time professional librarian
1 full-time clerk

FLOOR SPACE:
10,000 sq. ft.

HOLDINGS:
19,876 books
1,587 bound periodicals
185 sound filmstrip kits
75 cassettes, audio
96 cassettes, video
Subscriptions:
8 newspapers
60 magazines



Reprinted from: *Library Learning Resources Facilities: New and Remodeled.* Austin: Texas Education Agency, 1982.

Appendix D

LIBRARY FURNITURE VENDORS

(Partial Listing)

Creative Interiors, P.O. Box 1079, Amherst, NH 03031
(603) 889-2330

Criteria Inc., Route 107, Raymond, NH 03077
(603) 895-3331

Robert Lord Company, 36 Commerce Street, P.O. Box 280, Glastonbury, CT 006033
1-800-742-6611

The Tucker Company, 12 Parmenter Road, Londonderry, NH 03053
(603) 434-5574

The Vermont Agency of Natural Resources, Department of Forests, Parks & Recreation, publishes a ***Manufacturers and Craftsmen Directory*** , a listing of over 400 wood craftsmen in Vermont arranged by county and product. This publication is available from the Vermont Agency of Natural Resources, Department of Forests, Parks and Recreation, Montpelier, VT 05602 (802) 244-8711.

GLOSSARY OF TECHNICAL TERMS

Automated circulation system A system which uses a computer for charging and discharging items borrowed from library collections.

Carrel A small cubicle or study desk for individual use. A "wet" carrel is equipped with electrical outlets. A "dry" carrel has no outlets.

Compact disc A 4-3/4 inch diameter disc used almost exclusively to store digitized audio data in a form to be read by a laser beam. Provides one hour of high quality stereo playback.

CD-ROM Compact disc read-only memory . This version of optical media is used primarily for storing large amounts of data (550 megabytes to 640 megabytes) for electronic publishing applications .

Interactive video An instructional delivery system whereby material recorded on videodisc is presented under computer control, allowing viewers to not only to see and hear the material, but to make active responses affecting the pace and sequencing of the presentation.

Microfiche A flat sheet of film containing microimages arranged in a grid pattern that can only be read with magnification.

Microfilm Microimages on a roll of film that can only be read with the aid of magnification.

Microform General term applied to all types of microreproduction.

Microform reader A machine specifically designed to magnify microforms for reading.

Online database searching Term referring to the accessing of remote databases using a computer and telecommunications.

OPAC Online public access catalog. A library catalog, automated by computer, that is for public use.

Optical media Term used for technologies which encode information by the use of optically sensitive materials and laser for recording and reading. Compact disc, CD-ROM, and video disc are the most publicized.

Telefacsimile Image oriented electronic technology used to transmit full pages of text over telephone lines.

Videodisc A plastic platter, 12 inches in diameter, on which motion and still video, audio, and digital data may be recorded and played back using laser technology. 54,000 frames of video can be recorded per side.

REFERENCES

American Library Association and the Association for Educational Communications and Technology. (1988) *Information Power: Guidelines for School Library Media Programs*. Chicago: Author.

Bennett, J. (1987) Trends in School Library Media Facilities, Furnishings, and Collections. *Library Trends*, 36, 317-325.

Boss, R.W. (1987) *Information Technologies and Space Planning for Libraries and Information Centers*. Boston: G.H. Hall.

Cohen, A. & Cohen, E. (1979) *Designing and Space Planning for Libraries: A Behavioral Guide*. New York: Bowker.

New Hampshire Department of Education. (1975) *Manual for Planning and Construction of School Building*. Concord: Author.

New Hampshire Department of Education. (1987) *Minimum Standards for New Hampshire Public Elementary School Approval. Kindergarten - Grade 8*. Concord: Author.

Texas Education Agency. (1982) *Library Learning Resources Facilities: New and Remodeled*. Austin: Author.

Additional Resources

Connecticut Board of Education. (1982) *A Guide to School Library Media Programs*. Hartford: Author.

Hopkins, D.M. (1987)*School Library Media Programs, A Resource and Planning Guide*. Madison: Wisconsin Department of Education.

Maryland State Department of Education. (1975) *Media Center Facilities Design*. Annapolis: Author.

Prostano, E.T. and & Prostano, J.S. (1987) *The School Library Media Center*. Littleton, CO: Libraries Unlimited.